

[0027]

Sequence Listing

<110> President of Nara Institute Science and Technology

<120> Theobromine synthase polypeptide of coffee plant and the gene encoding said

5 polypeptide

<160> 8

<210> 1

<211> 378

<212> Amino acid

10 <213> Coffea arabica

<400> 1

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CASGPNTLLT VRDIVQSIDK VGQEEKNELE RPTIQIFLND LFQNDFNSVF KLLPSFYRKL 120
EKENGKRKIGS CLISAMPGSF YGRLFPEESM HFLHSCYSVH WLSQVPSGLV IELGIGANKG 180
15 SIYSSKGCRP PVQKAYLDQF TKDFTTFLRI HSKELFSRGR MLLTCICKVD EFDEPNPLDL 240
LDMAINDLIV EGLLEEEKLD SFNIPFFTPS AEEVKCIVEE EGSCEILYLE TFKAHYDAAF 300
SIDDDYPVRS HEQIKAHEYVA SLIRSVYEPI LASHFGEAIM PDLFHLRAKH AAKVLHMGKG 360
CYNLIISLA KKPEKSDV 378

<210> 2

20 <211> 1298

<212> Nucleic acid

<213> Coffea arabica

<400> 2

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GGTGAAACCT TTCCTTGAAC AATGCATACG AGAATTGTTG CGGGCCAAC TGCCTAACAT 180
CAACAAGTGC ATTAAAGTTG CGGATTTGGG ATGCGCTTCT GGACCAAACA CACTTTTAAC 240
AGTGCGGGAC ATTGTGCAAA GTATTGACAA AGTTGGCCAG GAAGAGAAGA ATGAATTAGA 300
ACGTCCACAC ATTGAGATTT TTCTGAATGA TCTTTTCCAA AATGATTTCA ATTCGGTTTTT 360
30 CAAGTTGCTG CCAAGCTTCT ACCGCAAACT CGAGAAAGAA AATGGACGCA AGATAGGATC 420
GTGCCTAATA AGCGCAATGC CTGGCTCTTT CTACGGCAGA CTCTTCCCCG AGGAGTCCAT 480
GCATTTTTTG CACTCTTGTT ACAGTGTTCA TTGGTTATCT CAGGTTCCCA GCGGTTTGGT 540

$\langle 210 \rangle_3$

<212> Amino acid

 $\langle 400 \rangle$ 3

$\langle 210 \rangle$ 4

<212> Nucleic acid

<213> *Coffea arabica*

GTCCTGCATA TGAATGGAGC TCCAAGAAGT CCTGCATATG AATGGAGGCG AAGGCGAAGC 60

$\leq 210 \geq 5$

25 <212> Amino acid

<400> 5

01091 (2000-307,149)

FSIDDDCQVR SHSPEYSDEH ARAAHVASLL RSVYEPILAN HFGEAIIPDI FHRFATNAAK 360
VIRLGKGFYN NLIISLAKKP EKSDI 385

<210> 6

<211> 1304

5 <212> Nucleic acid

<213> Coffea arabica

<400> 6

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10 ACTGGTTCTC GCCAAGGTGA AACCTGTCCT TGAACAATGC GTAGGGGAAT TGTTCGGGGC 180
CAACTTGCCC AACATCAACA AGTGCAATTA AGTTGCGGAT TTGGGATGCG CTTCCGGACC 240
AAACACACTT TTAACAGTTC GGGACATTGT ACAAAGTATT GACAAAGTTA GGCAAGAAAT 300
GAAGAATGAA TTAGAACGTC CCACCATTCA GGTTTTCTG ACTGATCTTT TCCAAAATGA 360
TTTCAATTCG GTTTTCATGT TGCTGCCAAG TTTCTACCGC AAACCTTGAGA AAGAAAATGG 420
15 ACGCAAGATA GGATCGTGCC TAATAGCCGC AATGCCTGGC TCTTCCACG GCAGACTCTT 480
CCCCGAGGAG TCAATGCATT TTTTACACTC TTCTTACAGT CTTCAATTTT TATCCCAGGT 540
TCCCAGCGGT TTGGTGAATG AATTGGGGAT CACTGCGAAC AAAAGGAGCA TTTACTCTTC 600
CAAAGCAAGT CCTCCGCCCG TCCAGAAGGC ATATTTGGAT CAATTTACGA AAGATTTTAC 660
CACATTTTAA AGGATTCGTT CGGAAGAGTT GCTTTCACGC GGCCGAATGC TCCTTACTTG 720
20 CATTTGCAAA GGAGATGAAT TCGACGGCCC GAATACCATG GACTTACTTG AGATGGCAAT 780
AAACGACTTG GTTGTGAGG GACATCTGGA GGAAGAAAAA TTGGACAGTT TCAATGTTCC 840
AATCTATGCA GCTTCAGTAG AAGAATTAAA GTGCATAGTT GAGGAGGAAG GTTCTTTTGA 900
AATTTTGTAC TTGGAGACTT TTAAGCTCCG TTATGATGCT GGCTTCTCTA TTGATGATGA 960
TTGCCAAGTA AGATCCCATC CCCAGAATA CAGCGATGAA CATGCTAGAG CAGCGCATGT 1020
25 GGCATCATT CTTAGATCAG TTTACGAACC CATCCTCGCA AATCATTTTG GAGAAGCTAT 1080
TATACCTGAC ATATTCCACA GGTTCGCGAC GAATGCAGCA AAGGTTATCC GCTTGGGCAA 1140
AGGCTTCTAT AATAATCTTA TCATTTCTCT TGCCAAAAAA CCAGAGAAGT CAGACATATA 1200
AAAGCTTGTT TATAGTTGGT TTTTGTGCTA TGGTTTGTTC TCTGATACGG GGAAAGGATT 1260
TAGTGCGGTT GGGGTTCAAA AAAAAAAAAA AAAAAAAAAA AAAA 1304

<210> 7

<211> 372

<212> Amino acid

<213> Coffea arabica

5 <400> 7

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LEKENGRRKIG SCLIGAMPGS FYSRLFPEES MHFLHSCYCL QWLSQVPSGL VTELGISTNK 180
GSIYSSKASR LPVQKAYLDQ FTKDFTTFLR IHSEELFSHG RMLLTICKG VELDARNAID 240
10 LLEMAINDLV VEGHLEEEKL DSNLPVYIP SAEVVCIVE EEGSFEILYL ETFKVLIDAG 300
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ISLAKKPEKS DV 372

<210> 8

<211> 1316

15 <212> Nucleic acid

<213> Coffea arabica

<400> 8

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20 AACTGGTTCT CGCCAAGGTG AAACCTGTCC TTGAACAATG CGTACGGGAA TTGTTGCGGG 180
CCAACCTGCC CAACATCAAC AAGTGCATTA AAGTTGCGGA TTTGGGATGC GCTTCTGGAC 240
CAAACACACT TTTAACAGTT CGGACATTG TCCAAAGTAT TGACAAAGTT GGCCAGGAAA 300
AGAAGAATGA ATTAGAACGT CCCACCATTG AGATTTTCTT GAATGATCTT TTCCCAAATG 360
ATTTCAATTC GGTTTTCAAG TTGCTGCCAA GCTTCTACCG CAAACTTGAG AAAGAAAATG 420
25 GACGCAAAAT AGGATCGTGC CTAATAGGGG CAATGCCCCG CTCTTTCTAC AGCAGACTCT 480
TCCCCGAGGA GTCCATGCAT TTTTACTACT CTTGTTACTG TCTTCAATGG TTATCTCAGG 540
TTCCTAGCGG TTTGGTGACT GAATTGGGGA TCAGTACGAA CAAAGGGAGC ATTTACTCTT 600
CCAAAGCAAG TCGTCTGCCC GTCCAGAAGG CATATTTGGA TCAATTACG AAAGATTTTA 660
CCACATTTCT AAGGATTCAT TCGGAAGAGT TGTTTTCACA TGGCCGAATG CTCCTTACTT 720
30 GCATTTGTAA AGGAGTTGAA TTAGACGCCC GGAATGCCAT AGACTTACTT GAGATGGCAA 780
TAAACGACTT GGTGTGTGAG GGACATCTGG AGGAAGAAAA ATTGGATAGT TTCAATCTTC 840
CAGTCTATAT ACCTTCAGCA GAAGAAGTAA AGTGCATAGT TGAGGAGGAA GGTTCTTTTG 900

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